

a stirring system supported by the removable plate and removable with the removable plate for agitating the reaction mixtures, the stirring system comprising

stirrers extending into respective wells, and

a drive mechanism located external to the wells for moving the stirrers to agitate reaction mixtures in the wells.

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198. (new) A system as set forth in claim 197 wherein said drive mechanism comprises a drive train for driving said stirrers, and a motor for driving the drive train.

199. (new) A system as set forth in claim 198 wherein said drive train comprises a plurality of drive gears in mesh with one another and a motor for driving said drive gears.

200. (new) A system as set forth in claim 197 wherein said drive mechanism comprises a plurality of drive gears on the stirrers, and one or more motors for driving said drive gears.

201. (new) A system as set forth in claim 200 wherein said drive gears are in mesh and driven by a single motor.

395
202. (new) A system as set forth in claim 197 wherein said stirrers are removably attached to said drive mechanism.

203. (new) A system as set forth in claim 197 wherein said stirrers are of a non-metal chemically resistant material.

204. (new) A system as set forth in claim 203 wherein said stirrers are of a polymer material.

205. (new) A system as set forth in claim 197 further comprising fasteners for removably fastening said removable plate in face-to-face relation with an upper surface of said reactor block.

206. (new) A combinatorial chemistry reactor system for parallel processing of reaction mixtures, said system comprising

a reactor block having a series of wells therein extending down from an upper surface of the block, said wells holding said reaction mixtures,

E' an upper plate removably secured to the reactor block in face-to-face relation with said upper surface, the removable plate having openings therein in registry with the wells in the reactor block,

seals for sealing the wells of the reactor block to allow said reaction mixtures to react under pressure when the removable plate is secured to the reactor block, and

a stirring system supported by the removable plate and removable with the removable plate for agitating the reaction mixtures, the stirring system comprising

stirrers extending into respective wells, and

SJD 757 a drive mechanism located external to the wells for moving the stirrers to agitate reaction mixtures in the wells, said drive mechanism comprising a drive train for driving said stirrers and one or more motors for driving said drive train, said stirrers being removably attached to said drive mechanism.